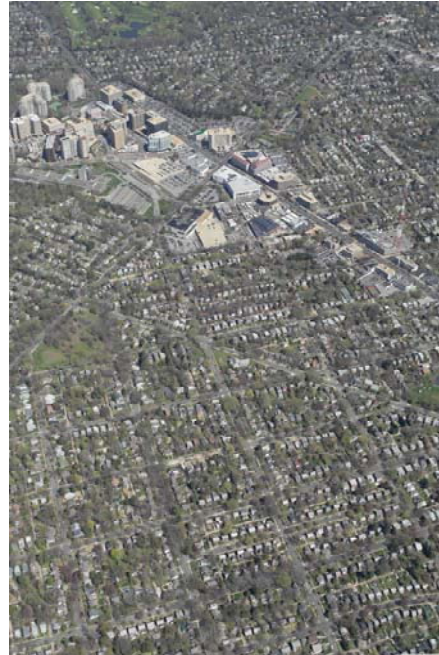


Infill Housing Task Force

August 22, 2007

Brookdale Model Study



1

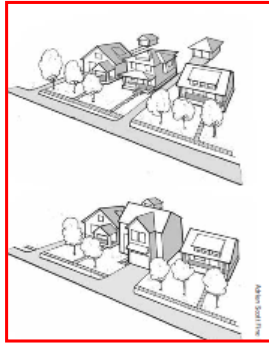
Agenda

- I. Welcome
- II. Review
- II. Elements of Site Design:
Lot coverage,
Height,
Massing, FAR
- III. Brookdale
Existing
Conditions
- IV. Study Models
- V. The Good in
Architecture
- VI. Notable
Examples
- VII. Next Steps



2

Issues of Site Design



- Lot Coverage
- Setbacks
- Buildable Area
- Building Height
- Massing
- Floor Area Ratio

3

Development Standards R-60

35% coverage
allowed

Front Setback 25'

Rear Setback 20'



Side Setbacks 8'/18'

Height 35' / 30'

Height 2.5 stories



4

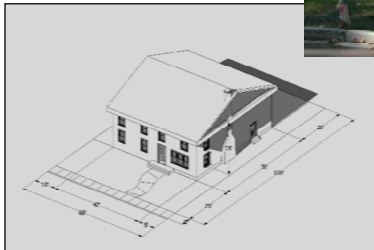
Lot Coverage

Buildable Area

Setbacks

Green Area

Tree Save



5

Height

Roof Design -- Variable Roof Levels -- Massing



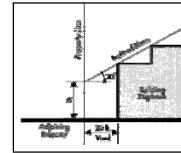
6

Windsor Lane, Bethesda

Building Height <30 feet

Massing

Volume & Bulk -- Varied Roof Levels

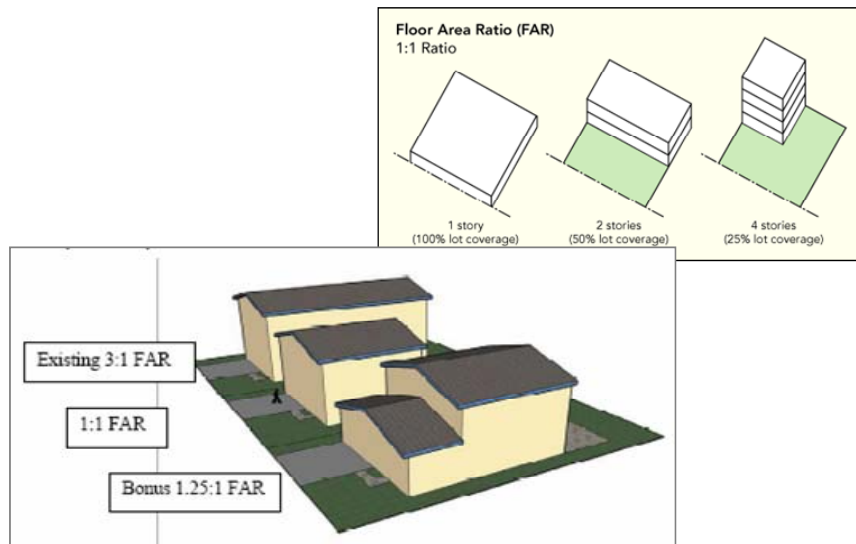


Materials
Articulation
Scale

7

Floor Area Ratio

Coverage -- Height -- Massing -- Attics -- Basements



8

Brookdale Vicinity

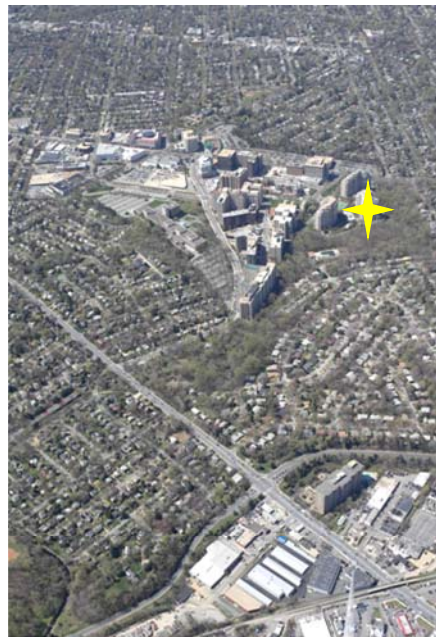
Friendship Heights
Metro Station
Western Ave
Potomac River
Stream Buffer
Scale Change
Transportation



9

Brookdale Vicinity

Friendship Heights
CBD-2 Zone
Commercial/ Mixed-Use Density
High Rise
Tree Save – Green Buffers
Development Contrast



10

Brookdale Vicinity

Western Avenue

GEICO

Neighborhood Streets

Impervious Area

Contrasts



11



Brookdale Block Study

Older Neighborhood

R-60 Zone

Narrow Streets

Sequential

House Additions

Unbuilt Lot

Varied Lot Sizes



12

Brookdale Block Study

Older Neighborhood

R-60 Zone

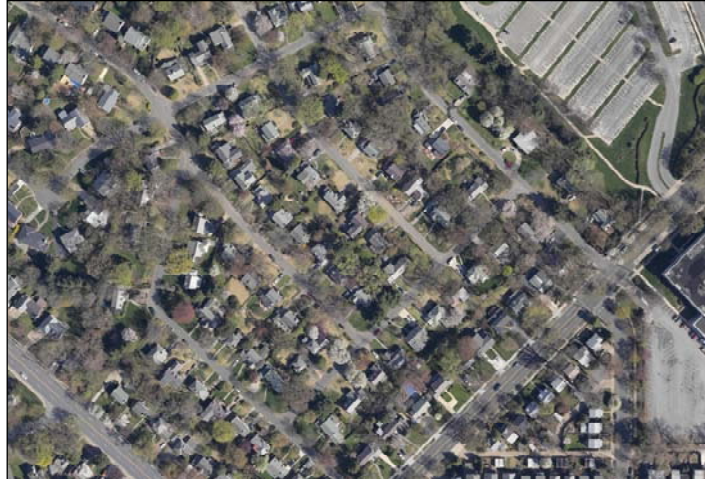
Narrow Streets

Sequential

House Additions

Unbuilt Lot

Varied Lot Sizes



13

Brookdale Development Model

Existing Conditions



14

Brookdale Development



Street	Address	Lot Size	House Size	Exist. Cover. SF	Exist. Cover. %	Exist. FAR
Andover						
7000	4210	7,530	1,710	1,625	23.09%	0.24
Cortland						
7000	4000	6,700				
7000	4000	6,000	1,040	1,288	21.63%	0.31
7000	4010	6,300	1,357	1,380	21.73%	0.21
7000	4012	6,700	1,010	1,426	20.97%	0.28
7000	4014	6,001	1,000	1,346	19.53%	0.26
7000	4010 *	10,204	1,000	1,200	11.70%	0.16
Dalton						
7000	4001	6,300	1,000	1,510	16.08%	0.18
7000	4003	6,170	2,040	1,533	24.83%	0.48
7000	4005	6,170	1,000	1,430	23.16%	0.31
7000	4007	6,170	1,071	1,234	19.98%	0.27
7000	4009	6,437	2,000	1,156	17.96%	0.41
7000	4011	6,000	1,001	1,202	17.27%	0.23
7000	4013 *	10,402	1,700	1,200	11.54%	0.17
Averages		6,721	1,710	1,348	17.31%	0.20

15

Existing Data

Brookdale Development Model

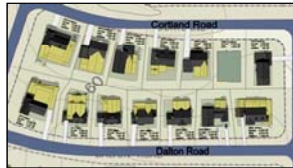
Maximum Lot Coverage: 35%



16

Brookdale Development Model

Maximum
 Lot Coverage: 35%



Street	Address	Lot Size	House Size	Cost Base/FE	Cost Base/ft²	Sub/FAC	Cost SF/ft²
Audover							
7000	5210	7,000	1,700	1,625	23.09%	0.24	2,464
Cortland							
1941	4506	5,700					1,995
2041	4508	5,955	1,348	1,288	21.63%	0.31	2,084
2041	4510	6,350	1,357	1,300	21.73%	0.21	2,223
2041	4512	6,700	1,426	1,426	20.97%	0.28	2,380
7041	4514	6,881	1,346	1,346	19.53%	0.26	2,412
2041	4516 *	10,764	1,885	1,200	11.70%	0.16	3,589
Dalton							
2030	4501	9,385	1,880	1,510	16.08%	0.18	3,288
2030	4503	6,175	2,340	1,533	24.83%	0.48	2,161
2030	4505	6,175	1,880	1,430	23.16%	0.31	2,161
1930	4507	6,175	1,671	1,234	19.98%	0.27	2,161
1930	4509	6,437	2,030	1,156	17.96%	0.41	2,253
1930	4511	6,960	1,601	1,202	17.27%	0.23	2,436
2030	4513 *	10,482	1,725	1,200	11.54%	0.17	3,641
Averages:		6,721	1,710	1,348	17.31%	0.20	2,518

35% Data

17

Brookdale Development Model

Maximum Lot Coverage: 30%

Infill House

Courtyard Style House
 (22% Lot Coverage)

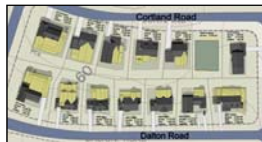


Infill Plan

22

Brookdale Development Model

Lot Coverage: 30%



30% Data

Street	Address	Lot Size	House Size	Exist. Cover SF	Exist. Cover %	Exist FAR	Maximum 30%
							0.3
Andover							
1939	5210	7,839	1,710	1,625	23.09%	0.24	2,112
Cortland							
1947	4510	5,780					1,710
1947	4508	5,925	1,040	1,283	21.63%	0.31	1,787
1947	4510	8,280	1,367	1,380	21.73%	0.21	1,905
1947	4512	8,780	1,310	1,425	20.97%	0.28	2,040
1947	4514	8,881	1,888	1,345	19.53%	0.26	2,067
1947	4518 *	10,254	1,885	1,200	11.70%	0.16	3,076
Dalton							
1939	4501	8,385	1,000	1,510	16.08%	0.18	2,818
1939	4503	8,175	2,040	1,533	24.83%	0.48	1,853
1939	4505	8,175	1,888	1,430	23.16%	0.31	1,853
1939	4507	8,175	1,671	1,234	19.98%	0.27	1,853
1939	4509	8,437	2,030	1,155	17.96%	0.41	1,931
1939	4511	8,980	1,881	1,202	17.27%	0.23	2,088
1939	4513 *	10,482	1,725	1,200	11.54%	0.17	3,121
Averages		8,721	1,710	1,343	17.31%	0.20	2,158

Brookdale Development Model

Lot Coverage: 25%



24

Brookdale Development Model

Maximum Lot Coverage: 25%

Infill House

Hampden Lane Example
 (20% Lot Coverage)



Infill Plan

25

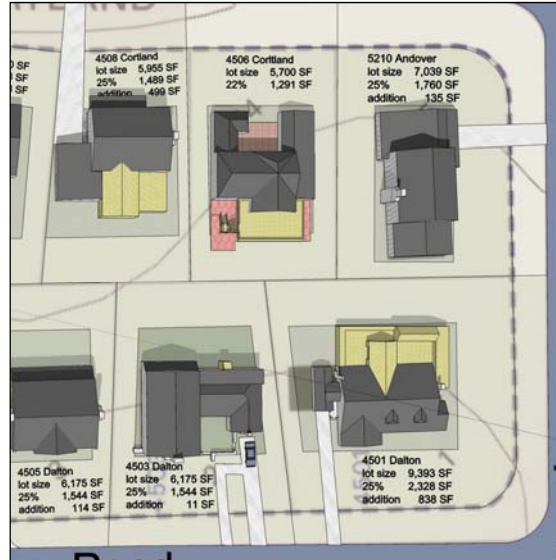
Brookdale Development Model

Lot Coverage: 25%

Infill House

Courtyard Style
 22% Lot Coverage

Infill Plan



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Brookdale Development Model

Lot Coverage: 25%



25% Data

Street	Address	Lot Size	Home Size	Exist. Cover SF	Exist. Cover %	Exist FAR	Scenario 25%
Andover	5210	7,039	1,710	1,625	23.09%	0.24	1,760
Cortland	4506	5,700	1,291	1,283	21.63%	0.31	1,425
	4508	5,955	1,489	1,489	25.00%	0.31	1,489
	4510	6,390	1,357	1,380	21.73%	0.21	1,588
	4512	6,790	1,710	1,425	20.97%	0.28	1,700
	4514	6,891	1,880	1,348	19.53%	0.26	1,723
	4516 *	10,254	1,885	1,200	11.70%	0.16	2,564
Dalton	4501	9,393	1,880	1,510	16.08%	0.18	2,348
	4503	6,175	2,440	1,533	24.83%	0.48	1,544
	4505	6,175	1,880	1,430	23.16%	0.31	1,544
	4507	6,175	1,671	1,234	19.98%	0.27	1,544
	4509	6,437	2,636	1,155	17.96%	0.41	1,609
	4511	6,889	1,881	1,202	17.27%	0.23	1,740
	4513 *	10,882	1,725	1,200	11.54%	0.17	2,601
Averages		6,721	1,710	1,343	17.31%	0.20	1,798

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Brookdale Development Model

Lot Coverage: 20%



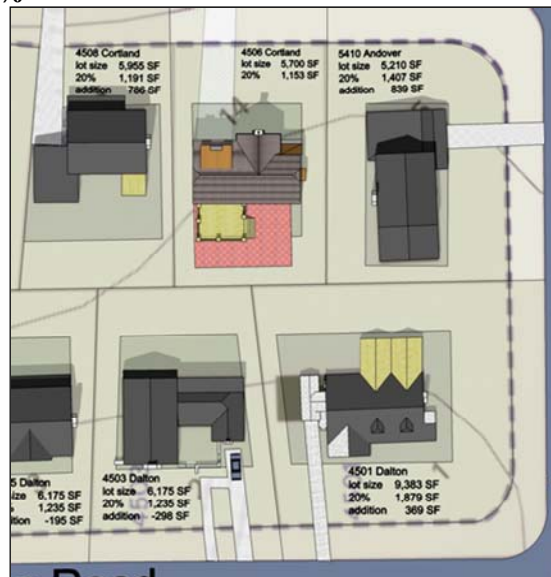
28

Brookdale Development Model

Maximum Lot Coverage: 20%

Infill House

Hampden Lane Example
(20% Lot Coverage)



Infill Plan

29

Brookdale Development Model

Lot Coverage: 20%

Infill House

Courtyard Style
 22% Lot Coverage

Infill Plan



30

Brookdale Development Model

Lot Coverage: 20%

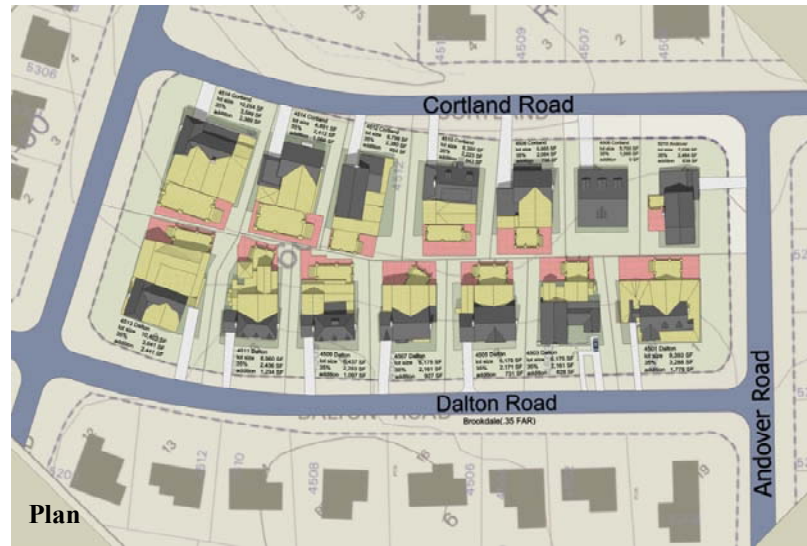
Street	Address	Lot Size	House Size	Est. Cover SF	Est. Cover %	Est. FSR	Comment
Andover							
19th	5210	7,830	1,710	1,625	23.09%	0.24	1,408
Cortland							
19th	4508	5,700	1,040	1,288	21.63%	0.31	1,140
19th	4508	5,955	1,040	1,288	21.63%	0.31	1,191
19th	4510	6,380	1,367	1,380	21.73%	0.21	1,270
19th	4512	6,700	1,010	1,426	20.97%	0.28	1,360
19th	4514	6,881	1,000	1,346	19.53%	0.26	1,378
19th	4518 *	10,254	1,000	1,200	11.70%	0.16	2,051
Dalton							
19th	4501	9,383	1,000	1,510	16.08%	0.18	1,879
19th	4503	6,175	2,040	1,533	24.83%	0.48	1,235
19th	4505	6,175	1,000	1,430	23.16%	0.31	1,235
19th	4507	6,175	1,071	1,234	19.98%	0.27	1,235
19th	4509	6,437	2,030	1,150	17.90%	0.41	1,287
19th	4511	6,880	1,001	1,202	17.27%	0.23	1,392
19th	4513 *	10,482	1,700	1,200	11.54%	0.17	2,000
Averages							
		6,721	1,710	1,348	17.31%	0.20	1,430

31

20% Data

Brookdale Development Model

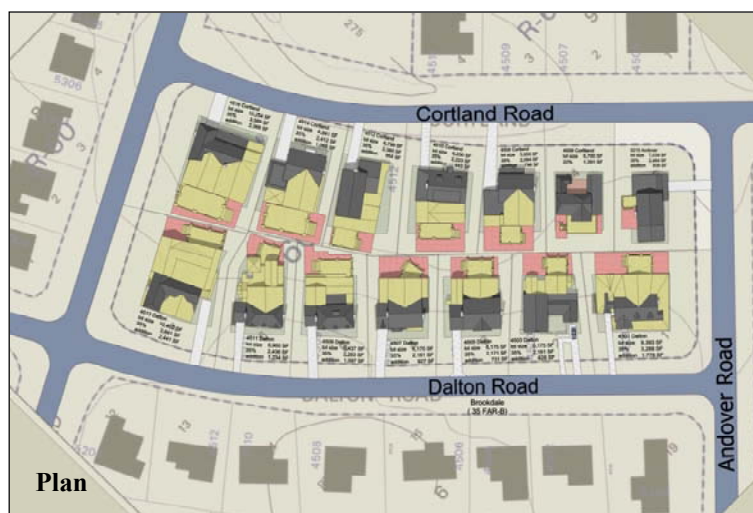
0.35 FAR One-Story with Maximum 35% Lot Coverage



32

Brookdale Development Model

0.35 FAR Two-Story with 22% Lot Coverage
Varied Massing, Roof Heights



33

Brookdale Development Model

0.40 FAR

**Two-Story with 20% Lot Coverage
 Varied Massing, Roof Heights**

Infill House

**Hampden Lane Example
 (20% Lot Coverage)**



34

Lessons

Architecture

Massing
 Height
 Materials
 Articulation
 Tree Save



4118 Stanford Street, Chevy Chase
Lot Size: 6,667 SF
Lot Coverage 33%
Height 28 feet

35

Lessons

Architecture

Height
Roof Design
Articulation
Materials
Scale



4817 Leland Street, Bethesda
Lot Size: 5,850 SF
Lot Coverage 34.5%
Height 28 feet
1-car detached garage, rear

36

Lessons

Architecture

Massing
Height
Materials
Lot Coverage
Scale
Grading



4549 Windsor Lane
Lot Size: 5,280 SF
Lot Coverage 34%
Height 29'-5" feet
1-car garage

37

Lessons

Architecture

Massing
Height
Materials
Lot Coverage



3401 Rolling Court, Chevy Chase
Lot Size: 10,753 SF
Lot Coverage 32%
Height 23 feet
2-car garage, attached

38

Lessons

Architecture

Massing
Height
Materials
Lot Coverage
Scale
Grading



3602 Thornapple Street, Chevy Chase
Lot Size: 6,250 SF
Lot Coverage 34.5%
Height 28 feet
1-car detached garage, rear

39

Lessons

Architecture

Massing
Height
Materials
Lot Coverage
Scale
Grading



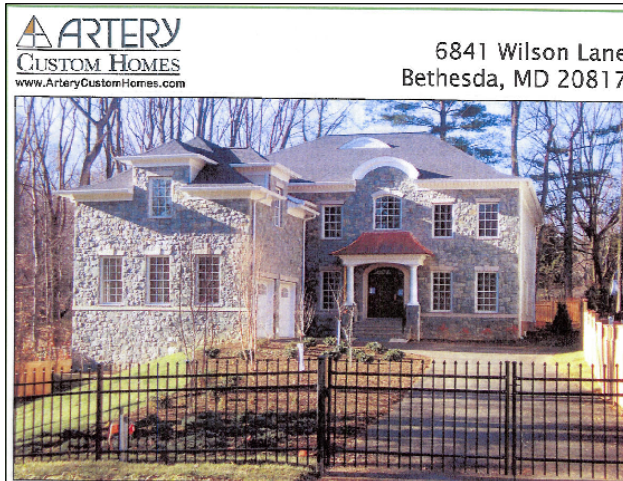
4502 West Virginia Avenue, Bethesda
Lot Size: 6,667 SF
Lot Coverage 33%
Height 28 feet
1-car garage, attached

40

Lessons

Architecture

Massing
Height
Materials
Lot Coverage
Scale
Grading



6841 Wilson Lane
Bethesda, MD 20817

6841 Wilson Lane, Chevy Chase
Lot Size:
Lot Coverage
Height
2-car garage, attached

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Questions

1. **Lot Coverage** or **Floor Area Ratio**
2. **How to best influence Massing?**
3. **How to find the optimal numbers?**